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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/604,481	07/24/2003	Ceylan C. Guclu	GEMS8081.150-1	1480
27061	7590	12/16/2004	EXAMINER	
ZIOLKOWSKI PATENT SOLUTIONS GROUP, LLC (GEMS)			VARGAS, DIXOMARA	
14135 NORTH CEDARBURG ROAD			ART UNIT	
MEQUON, WI 53097			PAPER NUMBER	
			2859	

DATE MAILED: 12/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/604,481	GUCLU ET AL.	
	Examiner	Art Unit	
	Dixomara Vargas	2859	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 October 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3,5,7-10,12-20 and 22-25 is/are rejected.
- 7) ☒ Claim(s) 4,6,11 and 21 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 July 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>07/25/03</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Specification

1. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Drawings

2. Figure 1 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.121(d)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-3, 5, 7-10, 12-20 and 22-25 are rejected under 35 U.S.C. 102(b) as being anticipated by Vaughan et al. (US 4,888,555).

With respect to claims 1 and 9, Vaughan discloses a phantom for MR applications evaluation comprising (Figure 1, #10): a structure constructed to support a plurality of sections (sections #34), a first section containing material to emulate the MR properties of white matter of a human brain, a second section containing material to emulate the MR properties of gray matter of a human brain (Column 2, lines 33-45), and wherein the MR properties of the first and second sections differ in proton density (Column 5, lines 4-24).

5. With respect to claim 2, Vaughan discloses each section contains paramagnetic salt and agarose gel for T1 and T2 control (Column 4, lines 1-14).

6. With respect to claims 3, 5, 7, 8, 10, 19 and 20, Vaughan discloses the first section further comprises a plurality of tubes wherein each tube (sections #34) contains a common composition of paramagnetic gel, agarose gel, deuterium oxide, and water (Column 4, lines 1-14).

7. With respect to claims 12 and 24, Vaughan discloses the step of removably sealing an open end of each tube (Figure 1, #36, #38 and #40).

8. With respect to claim 13, Vaughan discloses the step of placing the tubes in the interstitial cavities (Figure 1, cavities formed by the space dividers or plates #24, #26 and #28) such that each tube of the first set of tubes is at least adjacent to at least one other tube of the first set and that each tube of the second set of tubes is at least adjacent to at least one other tube of the second set (Figure 1, the first set includes both tubes #34 on the top and the second set includes the tubes #34 on the bottom wherein the tubes on the top are adjacent to the tubes on the bottom).

Art Unit: 2859

9. With respect to claims 14 and 25, Vaughan discloses the first set of tubes emulates MR characteristics of white brain matter of a human brain and the second set of tubes emulates MR characteristics of gray matter of a human brain (Column 2, lines 33-45).
10. With respect to claim 15, Vaughan discloses a plurality of rails to form the interstitial cavities (Figure 1, #24, #26 and #28).
11. With respect to claims 16, 17 and 22, see rejection of claims 1 and 2 above.
12. With respect to claim 18, Vaughan discloses an optimum flip angle is determined to be less than 90 degrees (Abstract).
13. With respect to claim 23, see rejection of claims 1, 2 and 14 above.

Allowable Subject Matter

14. Claims 4, 6, 11 and 21 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
15. The following is a statement of reasons for the indication of allowable subject matter:
 - a. With respect to claim 4, the claim has been found allowable over the prior art of record because the prior art of record fails to teach or fairly suggest a phantom for MR applications evaluation comprising a phantom wherein the common composition includes approximately: 1.5 millimolar nickel (II) chloride paramagnetic salt; 1 percent by weight agarose gel; 35 percent by volume deuterium oxide; 65 percent by volume water; and 0.1% potassium sorbate in combination with the remaining limitations of claims 1-3 above.

- b. With respect to claim 6, the claim has been found allowable over the prior art of record because the prior art of record fails to teach or fairly suggest a phantom for MR applications evaluation comprising a phantom wherein the common composition includes approximately: 0.9 millimolar nickel (II) chloride paramagnetic salt; 1 percent by weight agarose gel; 20 percent by volume deuterium oxide; 80 percent by volume water; and 0.1% potassium sorbate in combination with the remaining limitations of claims 1, 2 and 5 above.
- c. With respect to claim 11, the claim has been found allowable over the prior art of record because the prior art of record fails to teach or fairly suggest a method of manufacturing a phantom for MR evaluation comprising the step wherein the first combination includes approximately 65 percent by volume water, and approximately 35 percent by volume deuterium oxide and the second combination includes approximately 80 percent by volume water, and approximately 20 percent by volume deuterium oxide in combination with the remaining limitations of claims 8 and 9.
- d. With respect to claim 21, the claim has been found allowable over the prior art of record because the prior art of record fails to teach or fairly suggest a method of evaluating MR applications comprising the step wherein the first tissue corresponds white matter in a human brain and includes 65 percent by volume water, 1.532 millimoles of NiCl_2 , 1.09 percent by weight agarose gel, and 35 percent by volume deuterium oxide, and the second tissue corresponds to gray matter in a human brain and includes 80 percent by volume water, 0.904 millimoles of NiCl_2 , 0.95 percent by weight agarose gel,

Art Unit: 2859

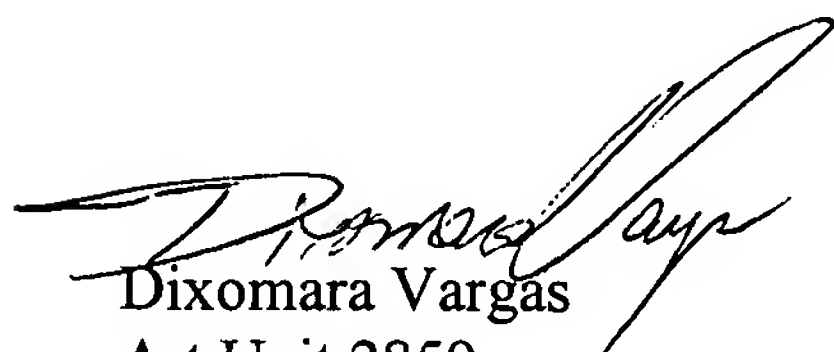
and 20 percent by volume deuterium oxide in combination with the remaining limitations of claims 16, 19 and 20.

Conclusion

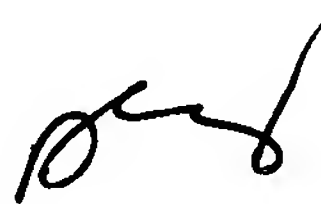
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dixomara Vargas whose telephone number is (571) 272-2252. The examiner can normally be reached on 8:00 am. to 4:30 pm..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Diego Gutierrez can be reached on (571) 272-2245. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Dixomara Vargas
Art Unit 2859
December 10, 2004



Diego Gutierrez
Supervisory Patent Examiner
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